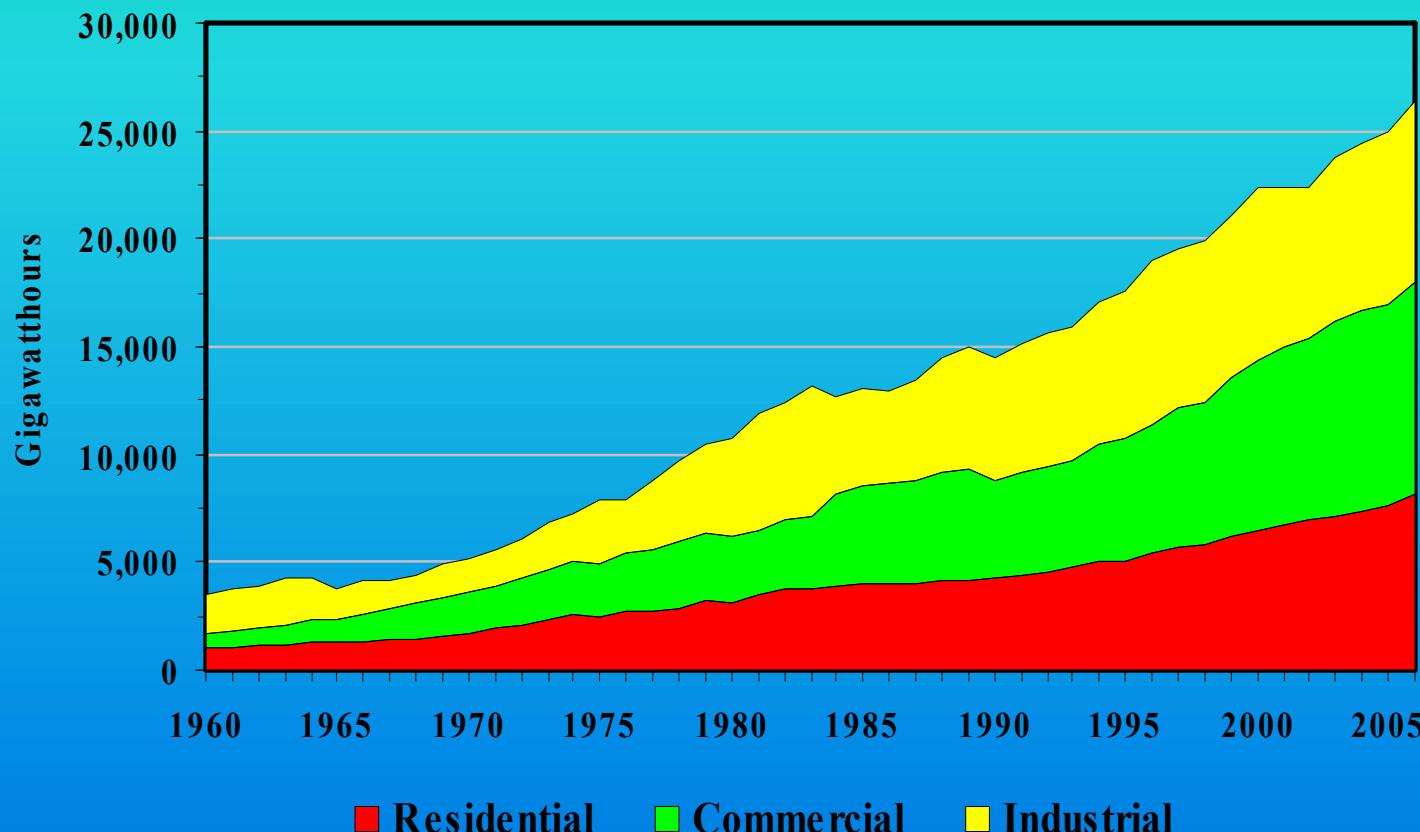
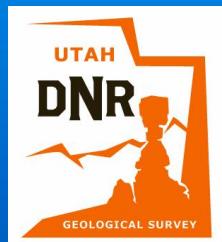


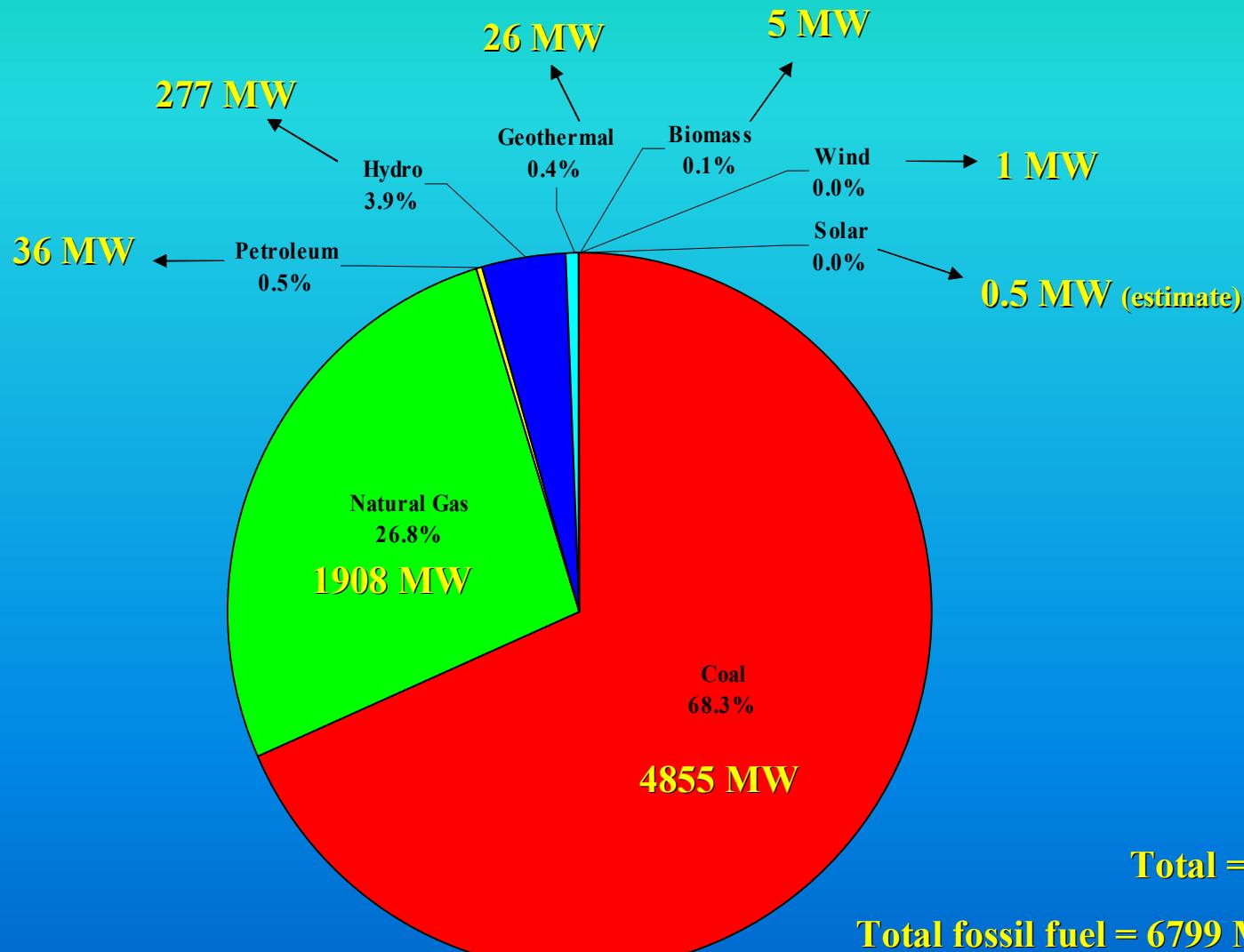
Utah electricity sales, 1960-2006



Average annual increase = 4.6 %



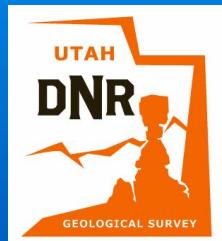
Utah electric generating capacity, 2007



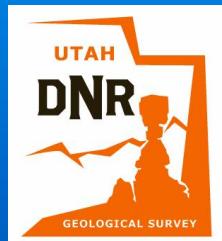
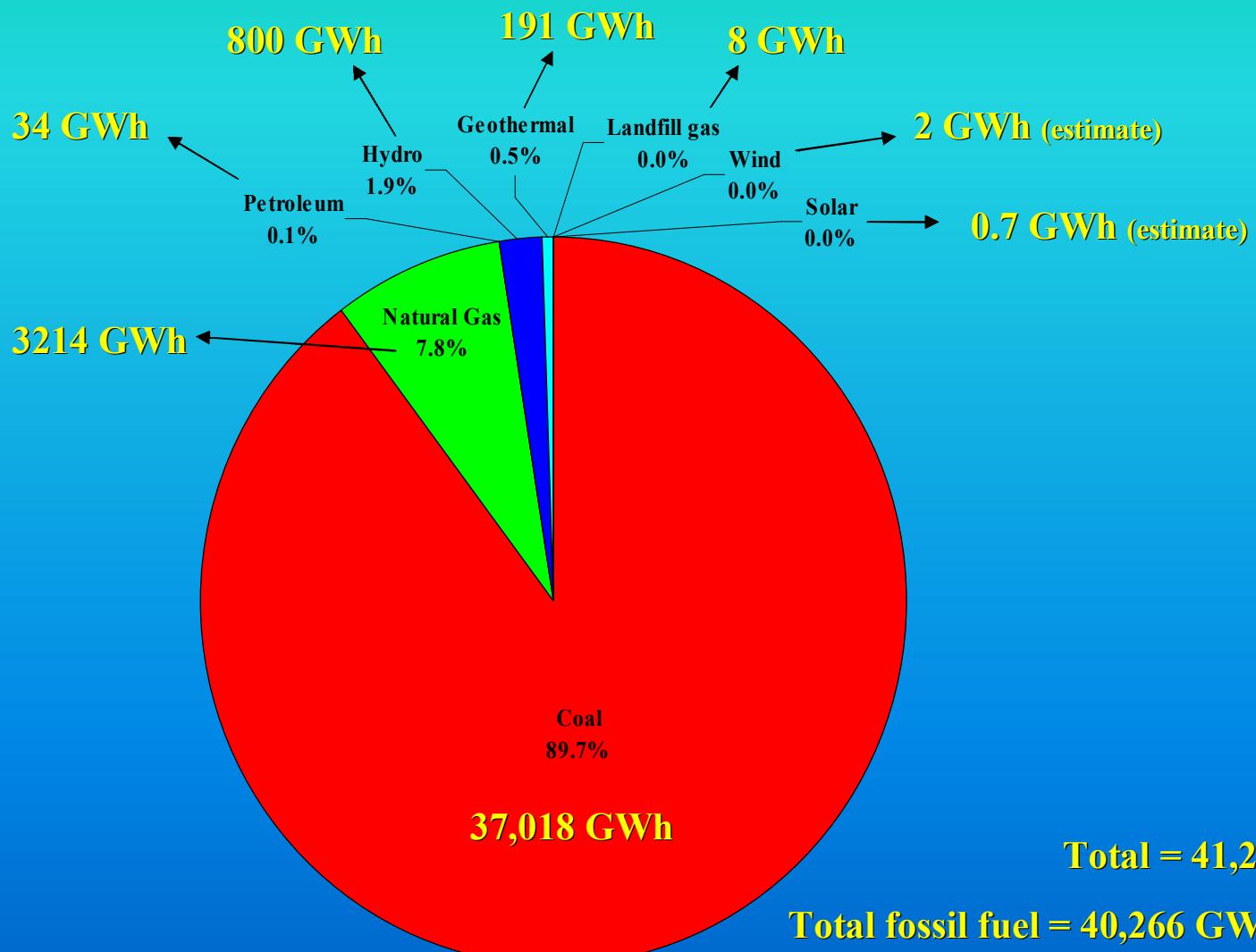
Total = 7109 MW

Total fossil fuel = 6799 MW (96%)

Total renewable = 310 MW (4%)

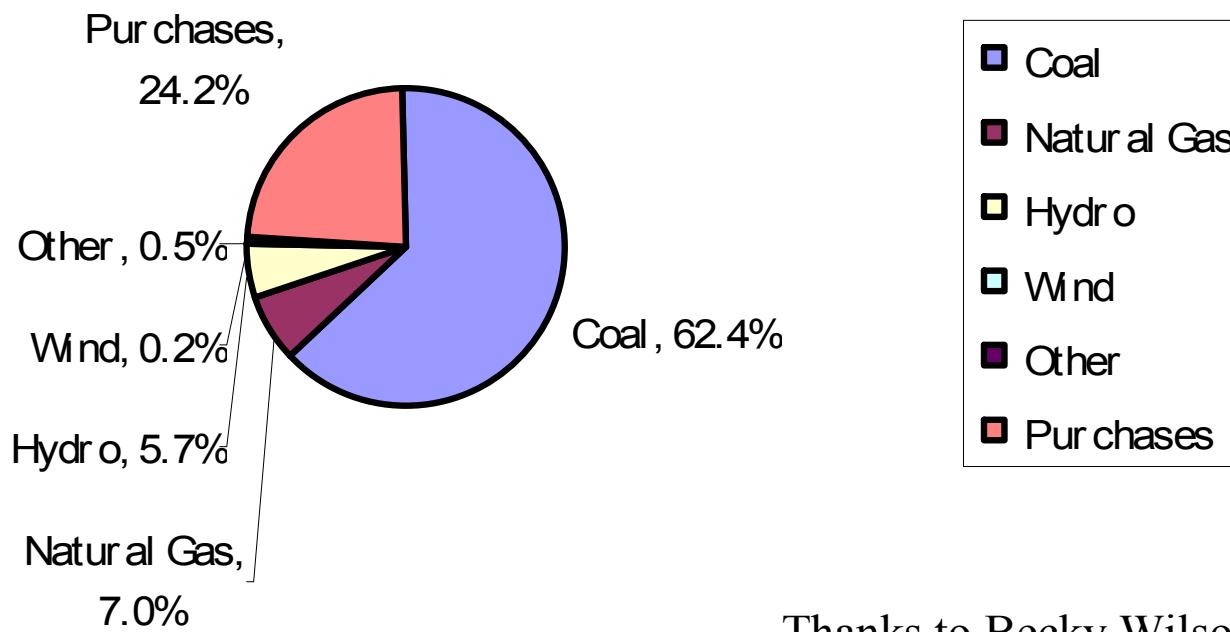


Utah electric generation, 2006



Estimated Rocky Mountain Power System Delivered MWh

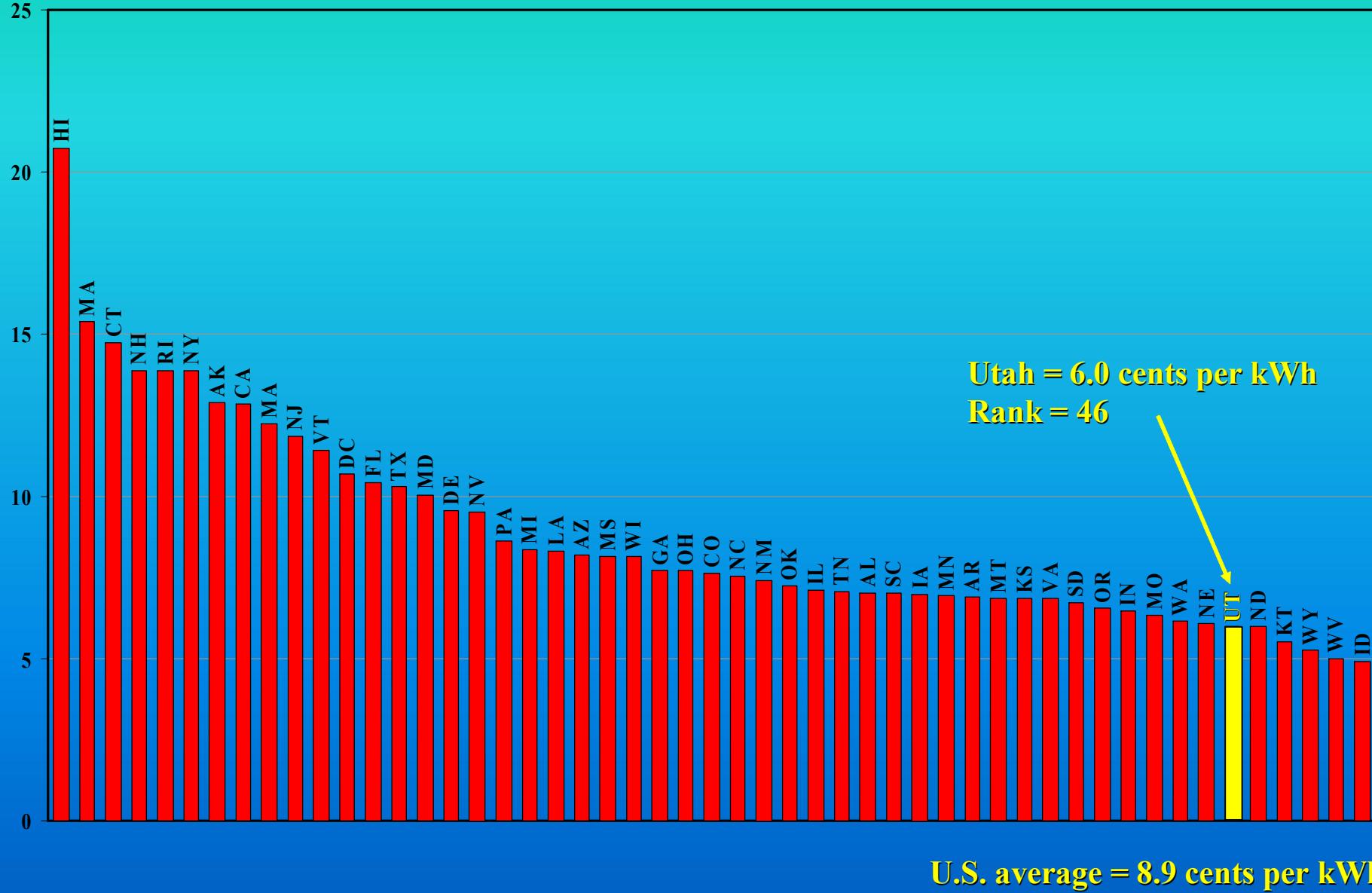
Rocky Mtn. Power Generation



Thanks to Becky Wilson

Price of electricity by state, 2006

(average of all sectors)

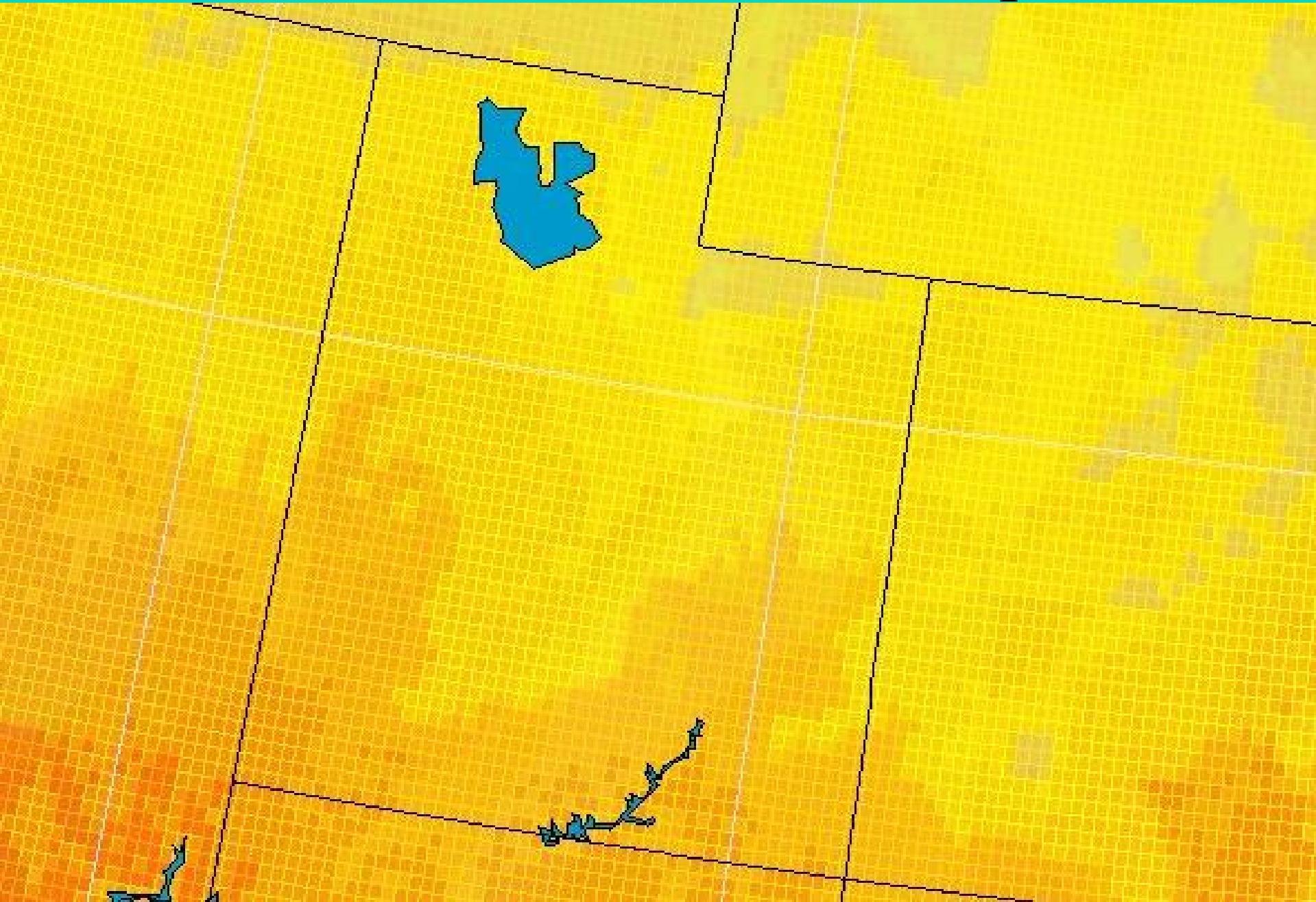


Comparing Renewables' Costs and Production for Utah

| Technology | Capital Cost (\$/W capacity) | Capacity Factor | Unit Cost (cents/kWh) |
|------------|------------------------------|-----------------|-----------------------|
| Wind | 1.7 – 1.8 | 30 – 35% | 5.0 – 6.0 |
| Geothermal | 3.0 – 4.5 | 80 – 90% | 3.8 – 5.0 |
| Solar PV | 8.0 – 10.0 | 17 – 20% | 30.0 – 40.0 |
| Coal | 2.8 – 3.5 | 85 – 90% | 5.2 - 6.3 |
| CC NG | 0.55 – 0.65 | 60 – 85% | 6.8 – 7.5 |



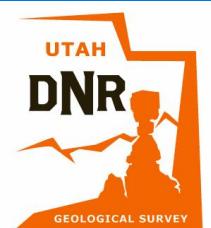
Utah Solar Resource Map



Solar Cost Hypothetical, Large Commercial End-User Site

- Assume 100kW, \$8/watt, financed @ 7% over 20 yrs
 - If pay gross cost (no tax incentives), must earn 50.6 cents / kWh to repay financing
 - If pay net cost (fed & state tax incentives), must earn 32.3 cents / kWh to repay financing*
- Assume 100kW, \$8/watt, no finance costs
 - If pay gross cost, must earn 27.2 cents / kWh for 20 yr payback
 - If pay net cost, must earn 17.4 cents / kWh for 20 yr payback
- Simple Paybacks in Years (No finance costs, local prices)
 - @ 6 cents / kW, no tax incentives = 89.53 yrs
 - @ 6 cents / kWh, w. UT tax incentives = 57.08 yrs
 - @ 13 cents / kWh, no tax incentives = 41.32 yrs
 - @ 13 cents / kWh, w. UT tax incentives = 26.34 yrs

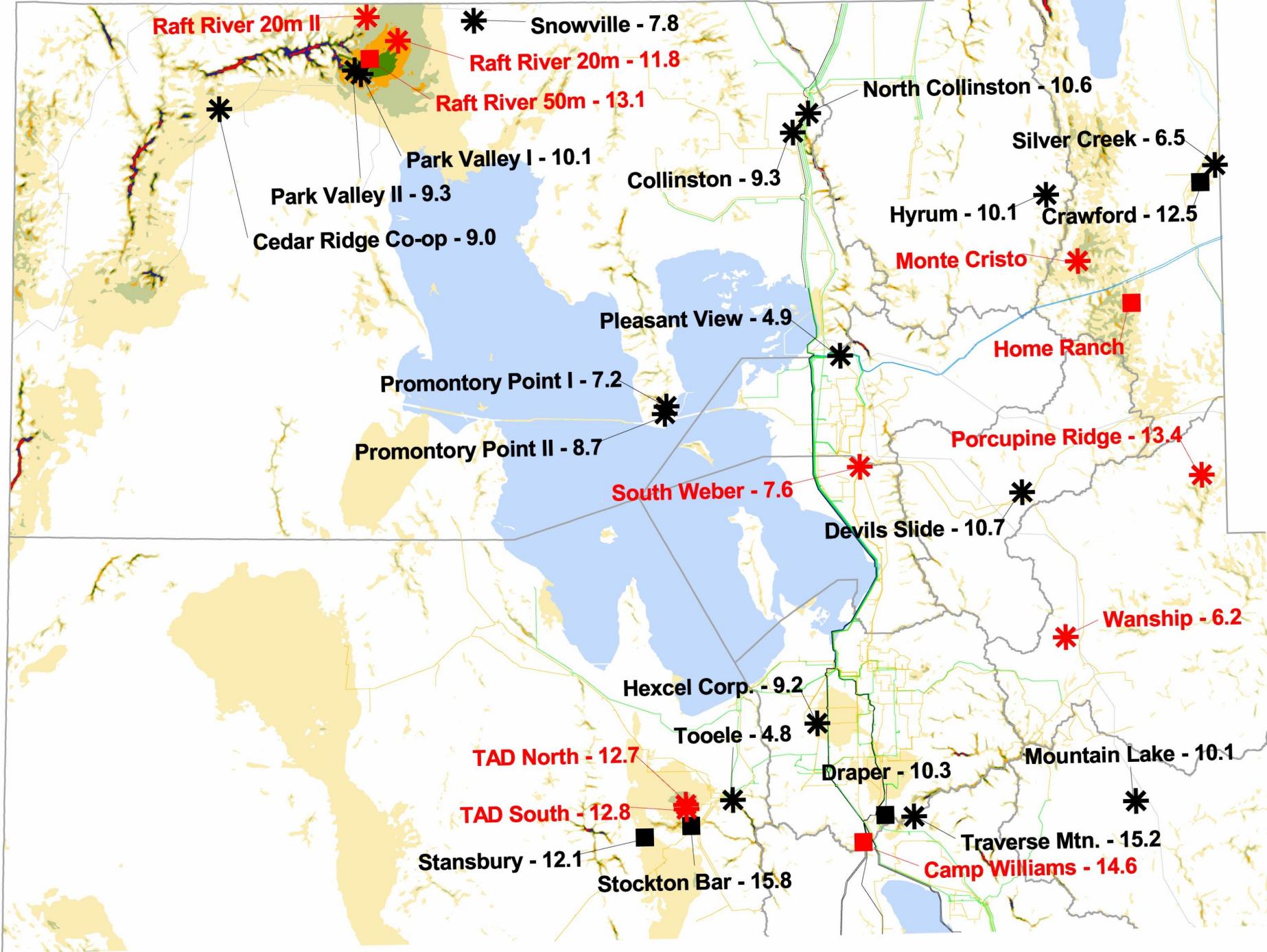
* - Federal incentive does not include accelerated depreciation



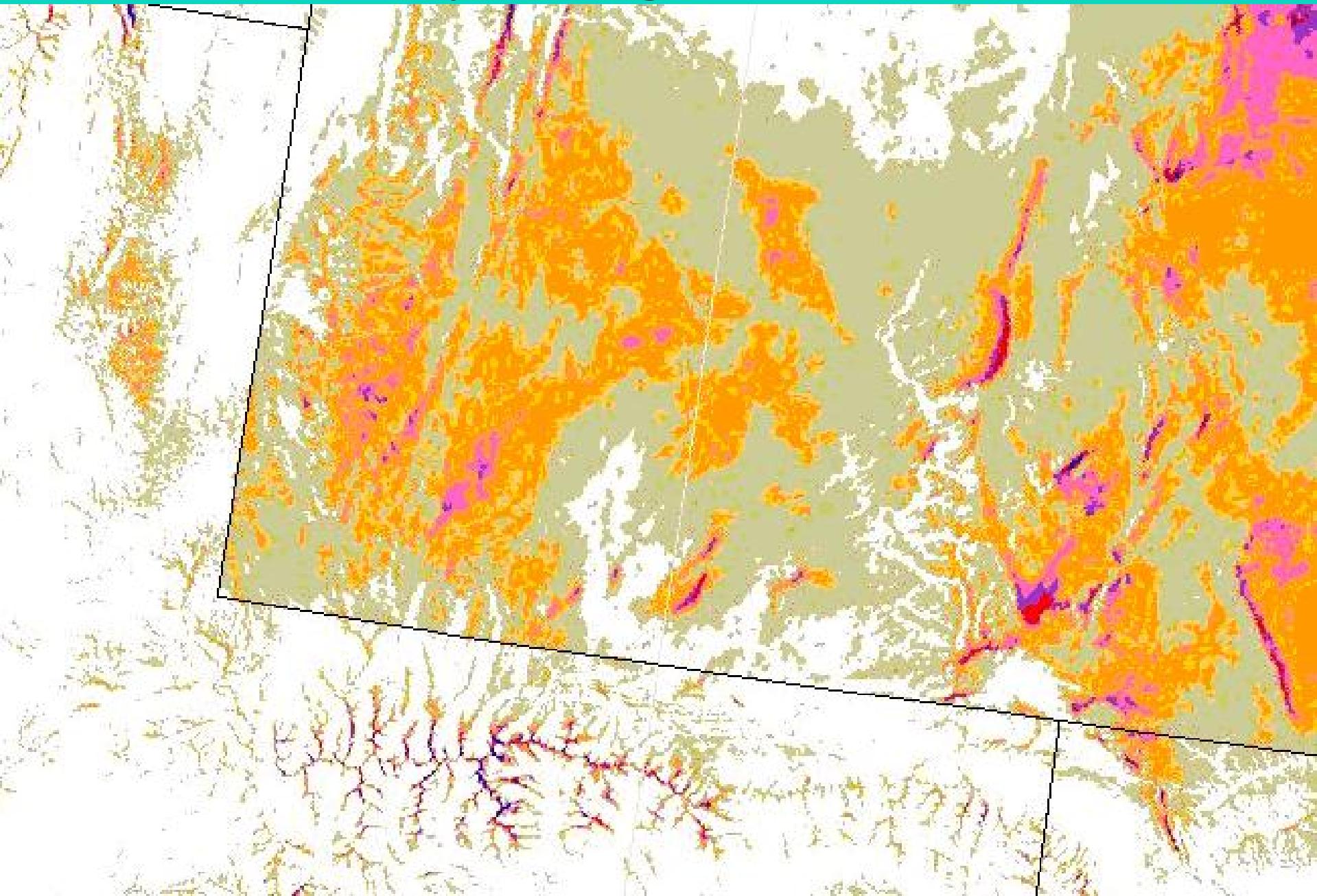
Solar Cost Hypothetical, Small Residential

- Assume 1kW, \$9/watt, no finance costs
 - If pay gross cost (no incentives, \$9,000), must earn 30.2 cents / kWh for 20 yr payback
 - If pay net cost (w. incentives, \$4,000), must earn 16.8 cents / kWh for 20 yr payback (2,978.4 kWh / yr, \$387.19)
- Simple Paybacks in Years (No finance costs, local prices)
 - @ 7.6 cents / kWh, no tax incentives = 79.52 yrs
 - @ 7.6 cents / kWh, w. tax incentives = 44.17 yrs
 - @ 13 cents / kWh, no tax incentives = 46.49 yrs
 - @ 13 cents / kWh, w. tax incentives = 25.83 yrs



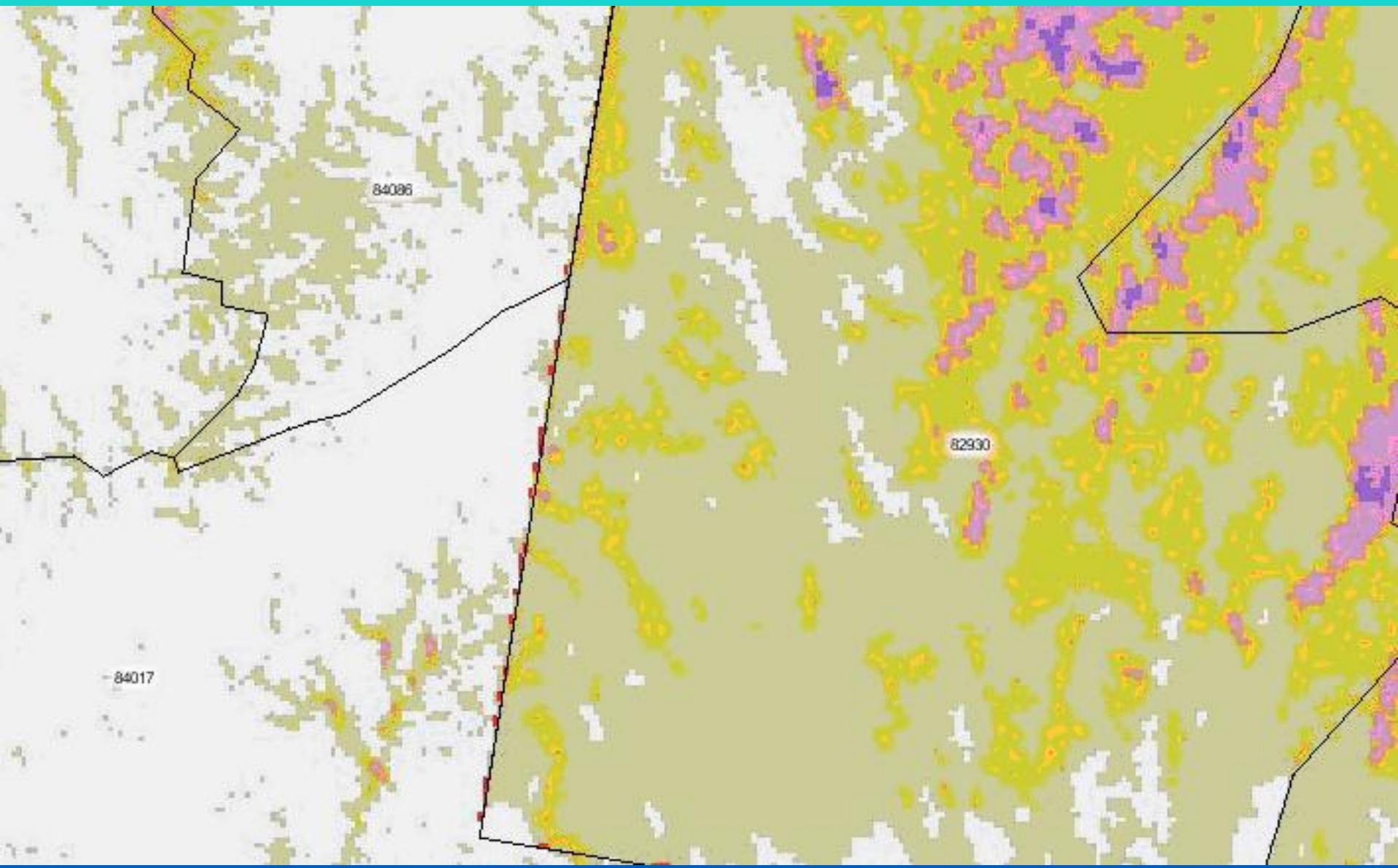


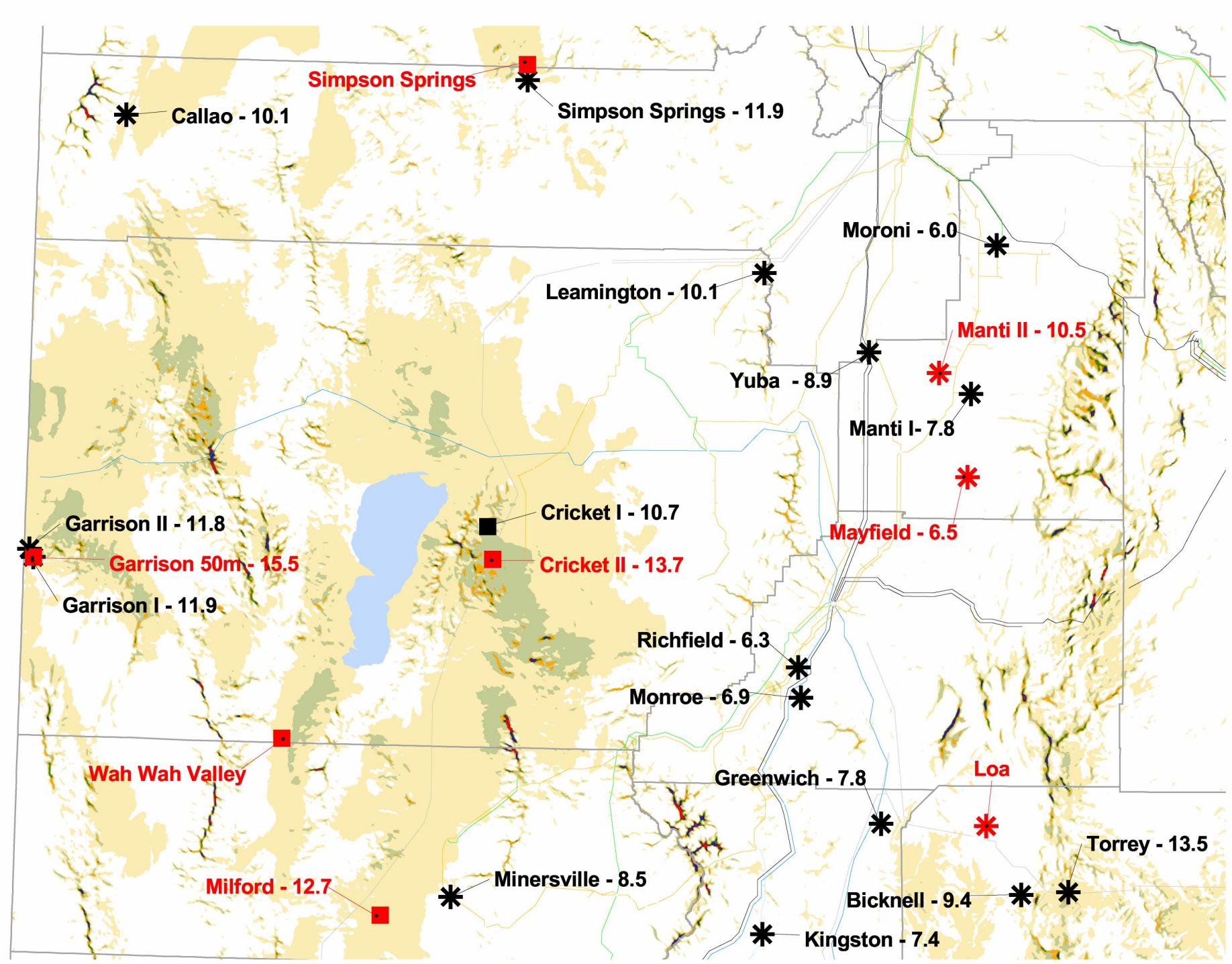
Utah Wyoming Border Winds



Border Winds ?

Must be that Darn Fence





Utah Geothermal Gradients

(see UGS website for
details)

